Contents Volume 185

J. WILLIAM HELTON (La Jolla, California)
AND HUGO J. WOERDEMAN (Williamsburg, Virginia)
Symmetric Hankel Operators: Minimal Norm Extensions and Eigenstructures 1

ADAM W. BOJANCZYK, RUTH ONN, AND
ALLAN O. STEINHARDT (Ithaca, New York)
Existence of the Hyperbolic Singular Value Decomposition 21

MARIO TABOADA (Los Angeles, California)
A Theorem in Linear Algebra With Applications to the Geometry of Quadrics 31

JEAN-CLAUDE EVARD (Laramie, Wyoming) AND
FRANK UHLIG (Auburn, Alabama)
Comparison of the Sets of Polynomials p and q Such That $X = p(A)$ and $Y = q(B)$ Are Solutions of the Matrix Equations $f(X) = A$ and $f(Y) = B$ 41

DRAGOSLAV HERCEG AND
NATAŠA KREJIĆ (Novi Sad, Federal Republic of Yugoslavia)
On the Convergence of the Unsymmetric Successive Overrelaxation (USSOR) Method 49

ELIZABETH A. KALININA AND
ALEXEI YU. UTESHEV (St. Petersburg, Russia)
Determination of the Number of Roots of a Polynomial Lying in a Given Algebraic Domain 61

LEONID LERER (Haifa, Israel) AND LEIBA RODMAN (Williamsburg, Virginia)
Sylvester and Lyapunov Equations and Some Interpolation Problems for Rational Matrix Functions 83

MOODY T. CHU (Raleigh, North Carolina)
The Stability Group of Symmetric Toeplitz Matrices 119

K. ZIĘTAK (Wroclaw, Poland)
Subdifferentials, Faces, and Dual Matrices 125

H. VÄLIAHO (Helsinki, Finland)
The Boolean Pivot Operation, M-matrices, and Reducible Matrices 143

H. MIRANDA AND ROBERT C. THOMPSON (Santa Barbara, California)
A Trace Inequality With a Subtracted Term 165

PETER LANCASTER (Calgary, Alberta, Canada) AND
QIANG YE (Winnipeg, Manitoba, Canada)
Rayleigh-Ritz and Lanczos Methods for Symmetric Matrix Pencils 173

JAMES W. DEMMEL (Berkeley, California) AND
WILLIAM GRAGG (Monterey, California)
On Computing Accurate Singular Values and
Eigenvalues of Matrices With Acyclic Graphs 203

GILBERT HELMBERG AND PETER WAGNER (Innsbruck, Austria) AND
GERHARD VELTKAMP (Eindhoven, the Netherlands)
On Faddeev-Leverrier's Method for the Computation of the
Characteristic Polynomial of a Matrix and of Eigenvectors 219

WANG XINMIN (Beijing, People's Republic of China)
Generalized Extrapolation Principle and Convergence
of Some Generalized Iterative Methods 235

HONGXIANG LI (Shanghai, People's Republic of China) AND
GANGSONG LENG (Changsha, People's Republic of China)
Matrix Inequality With Weights and Its Applications 273

AUTHOR INDEX 279